

ABSTRACT

It is easy to increase output with a wide stripe laser, but the lateral mode is a multimode, and the coupling efficiency is low with a single-mode fiber or a single-mode waveguide, creating
5 problems in terms of application to devices of high coherence. In view of this, the light emitted from a wide stripe semiconductor laser is passed through a mode converter and a wavelength selecting filter, then fed back to the active layer of the semiconductor laser, which fixes the oscillation mode of the semiconductor laser to single mode.